

REMARKS/ARGUMENTS

Claims 1-10 and 23-25 are pending. Claims 23-25 have been amended. No new matter has been introduced. Applicants believe the claims comply with 35 U.S.C. § 112.

Applicants note with appreciation the allowance of claims 1-10 and the indicated allowability of claims 24 and 25 if rewritten in independent form including all the limitations of the base claim and any intervening claims. Claims 24 and 25 have been rewritten in independent form. Accordingly, claims 24-25 are allowable.

Claim 23 stands rejected under 35 U.S.C. § 102(e) as being anticipated by Hshieh et al. (US 6,657,255).

Applicants respectfully submit that claim 23 as amended is novel and patentable over Hshieh et al. because, for instance, Hshieh et al. does not teach or suggest that the termination polysilicon layer has an opening to expose the bottom of the trench profile of the trench-type termination structure to split the terminal polysilicon layer into two discrete parts, and wherein the isolation layer is formed over the two discrete parts of the termination polysilicon layer and the bottom of the trench profile of the trench-type termination structure to fill the discrete features. This is shown, for instance, in Fig. 4F, in which the termination polysilicon layer 142 has an opening to expose the bottom of the trench profile 131 of the trench-type termination structure, and the isolation layer 181 is formed over the two discrete parts of the termination polysilicon layer 142 and the bottom of the trench profile 131 to fill the discrete features.

In Hshieh et al., however, the BPSG does not fill the discrete features of the polysilicon regions 211r, but forms two discrete BPSG regions 216 to expose the bottom of the trench, as seen in Fig. 2A. Instead, the metal drain contact 218d is formed over the bottom of the trench to fill the trench between the two discrete BPSG regions 216, and is placed in electrical connection with the N+ substrate 200 by a deep n+ region 219. See Fig. 2A and col. 4, lines 44-53.

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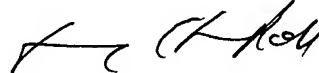
For at least the foregoing reasons, claim 23 is novel and patentable over Hshieh et al.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,



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